

Wirewound, Surface-Mount Molded Inductors



TEST EQUIPMENT

- HP4342A Q meter with Vishay Dale test fixture or equivalent
- HP4191A RF impedance analyzer (for SRF measurements)
- Wheatstone bridge

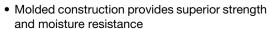
IMC1210ER1R5K

1.5

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FEATURES

- 3.2 mm x 2.5 mm x 2.2mm SMD size
- Printed marking





RoHS COMPLIANT

- Compatible with vapor phase and infrared reflow soldering
- Tape and reel packaging for automatic handling, 2000/reel, EIA-481
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

ELECTRICAL SPECIFICATIONS

Inductance range: 0.01 μH to 220 μH Special tolerances available upon request Operating temperature: -55 °C to +125 °C

Coilform material: non-magnetic from 0.01 μH to 0.10 μH ; powdered iron from 0.12 μH to 100 μH ; ferrite from 120 μH to 220 μH

STANDARD ELECTRICAL SPECIFICATIONS **TEST FREQ.** (MHz) IND TOL. a SRF MIN. DCR MAX. RATED DC CURRENT **PART NUMBER** L & Q (mA) (1) (µH) (%) MIN. (MHz) (Ω) IMC1210ER10NM 50 30 0.010 20 1000 0.13 734 IMC1210ER12NM 0.012 20 50 30 1000 0.14 707 IMC1210ER15NM 0.015 20 50 30 1000 0.16 661 IMC1210ER18NM 0.018 20 50 30 1000 0.18 624 IMC1210ER22NM 0.022 20 50 30 1000 0.20 592 IMC1210ER27NM 0.027 20 50 30 1000 0.22 564 IMC1210ER33NM 0.033 20 50 30 1000 0.24 540 IMC1210ER39NM 0.039 20 50 30 1000 0.27 530 IMC1210FR47NM 0.047 20 50 30 1000 0.30 483 IMC1210ER56NM 0.056 20 50 30 1000 0.33 470 IMC1210ER68NM 0.068 20 50 30 1000 0.36 450 IMC1210ER82NM 0.082 20 50 30 900 0.40 450 IMC1210ERR10M 0.10 20 50 30 700 0.44 450 IMC1210ERR12M 0.12 20 25.2 30 500 0.22 584 20 25.2 30 450 IMC1210FRR15M 0.15 0.25 548 IMC1210ERR18M 0.18 20 25.2 30 400 0.28 518 IMC1210ERR22M 0.22 20 25.2 30 350 0.32 484 20 25.2 320 IMC1210ERR27M 0.27 30 456 0.36 20 30 300 IMC1210ERR33M 0.33 25.2 0.40 453 IMC1210ERR39M 0.39 20 25.2 30 250 0.45 450 IMC1210ERR47M 0.47 20 25.2 30 220 0.50 450 IMC1210ERR56M 0.56 20 25.2 30 180 0.55 450 25.2 IMC1210ERR68M 0.68 20 30 160 0.60 450 IMC1210ERR82M 0.82 20 25.2 30 140 0.67 450 IMC1210ER1R0K 1.0 10 7.96 30 120 0.70 400 IMC1210FR1R2K 10 7.96 30 100 390 1.2 0.75

Revision: 30-Nov-2023 1 Document Number: 34043

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0.85

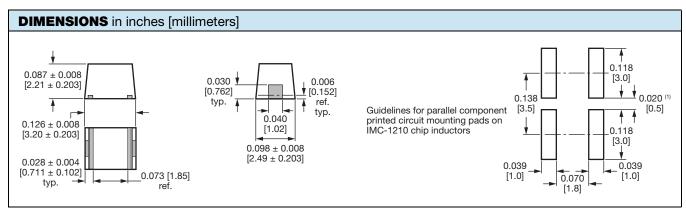
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STANDARD ELECTRICAL SPECIFICATIONS									
	IND.	TOL.	TEST FREQ. (MHz)	Q	SRF MIN.	DCR MAX.	RATED DC CURRENT		
PART NUMBER	(µH)	(%)	L & Q	MIN.	(MHz)	(Ω)	(mA) ⁽¹⁾		
IMC1210ER1R8K	1.8	10	7.96	30	80	0.90	350		
IMC1210ER2R2K	2.2	10	7.96	30	75	1.0	320		
IMC1210ER2R7K	2.7	10	7.96	30	70	1.1	290		
IMC1210ER3R3K	3.3	10	7.96	30	60	1.2	260		
IMC1210ER3R9K	3.9	10	7.96	30	55	1.3	250		
IMC1210ER4R7K	4.7	10	7.96	30	50	1.5	224		
IMC1210ER5R6K	5.6	10	7.96	30	45	1.6	217		
IMC1210ER6R8K	6.8	10	7.96	30	40	1.8	204		
IMC1210ER8R2K	8.2	10	7.96	30	38	2.0	194		
IMC1210ER100K	10	10	2.52	30	33	2.1	189		
IMC1210ER120K	12	10	2.52	30	30	2.5	173		
IMC1210ER150K	15	10	2.52	30	21	2.8	164		
IMC1210ER180K	18	10	2.52	30	20	3.3	151		
IMC1210ER220K	22	10	2.52	30	19	3.7	145		
IMC1210ER270K	27	10	2.52	30	18	5.0	122		
IMC1210ER330K	33	10	2.52	30	16	6.0	112		
IMC1210ER390K	39	10	2.52	30	15	7.0	104		
IMC1210ER470K	47	10	2.52	30	14	9.0	91		
IMC1210ER560K	56	10	2.52	30	12	10.0	87		
IMC1210ER680K	68	10	2.52	30	11	11.0	83		
IMC1210ER820K	82	10	2.52	30	10	12.0	79		
IMC1210ER101K	100	10	0.796	20	9	14.0	73		
IMC1210ER121K	120	10	0.796	15	8	11.0	70		
IMC1210ER151K	150	10	0.796	15	6.5	15.0	65		
IMC1210ER181K	180	10	0.796	15	6	17.0	60		
IMC1210ER221K	220	10	0.796	15	6	21.0	50		

Note

⁽¹⁾ Rated DC current based on the maximum temperature rise, not to exceed 40 °C at +85 °C ambient



Note

(1) Recommended spacing between components

PART MARKING

- Vishay Dale
- Inductance code
- Date code



Vishay Dale

DESCRIPTION							
IMC-1210	10 μΗ	± 10 %	ER	e3			
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD			

GLOBAL PART NUMBER								
PRODUCT FAMILY	1 2 1 0 SIZE	PACKAGE CODE	1 0 0 INDUCTANCE VALUE	TOL.				



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Vishay

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